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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,165	12/20/2001	Cheol Joon Yoo		4604

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HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. BOX 8910  
RESTON, VA 20195

EXAMINER

DAVIS, ROBERT B

ART UNIT PAPER NUMBER

1722

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

<b>Office Action Summary</b>	<b>Application No.</b> 10/029,165	<b>Applicant(s)</b> YOO, CHEOL JOON	
	<b>Examiner</b> Robert B. Davis	<b>Art Unit</b> 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-7 and 21 is/are allowed.
- 6) ☒ Claim(s) 8,9,11 and 12 is/are rejected.
- 7) ☒ Claim(s) 10, 13, 14 and 16-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Japanese reference (07-136,599A: figures 1, 5 and 7, abstract and partial English translation).

The Japanese reference teaches an apparatus for molding comprising: upper and lower die sets (23, 25 in figure 1), a mold die set cleaner (figure 5) for cleaning residue from the first and second mold dies and applies a parting agent, and first and second plurality of holes which are nozzles (4 and 5) configured in a row to apply a parting agent. The nozzles are described as spraying a parting agent and inherently blow air or an equivalent fluid towards the surface of each respective die as the air or fluid will be used to spray the parting agent.

3. Claims 8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese reference (figure 5).

The Japanese reference in Figure 5 displays an apparatus for cleaning a mold die set comprising: upper and lower brushes (27) for cleaning the upper and lower dies, respectively, a pair of vacuum holes (28), and a plurality of upper and lower nozzles (4,5) fixed to the front of the cleaning head. The frame element (30) supports the individual nozzles (three upper nozzles 4 and three lower nozzles 5) and can be

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considered a first nozzle block (4, 4, 4 and 30) and a second nozzle block (5, 5, 5 and 30).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese reference (-599) taken together with Applicant's admitted prior art figures 1a, 1b and pages 1-3 of the specification.

The Japanese reference discloses all claimed features except for the use of a vibrator to vibrate the brush.

The admitted prior art teaches a brush assembly (234) having a vibrator with which the brush cleanses opposed molds.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of the Japanese reference by using a vibrator to vibrate the brush as disclosed by the admitted prior art as such was a well known manner of translating a brush to remove debris from a mold.

***Response to Arguments***

6. Applicant's arguments filed 12/18/03 have been fully considered but they are not persuasive in regards to claims 8, 9, 11 and 12. Applicant's arguments are deemed persuasive in respect to claims 1, 10 and 13 as the prior art fails to disclose or suggest

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the combination of a brush, a vacuum hole, a plurality of holes configured in a row through which air is blown and a plurality of nozzles through which a parting compound is provided to the mold die set. The closest prior art (Japanese reference -599) fails to disclose the combination of a plurality of air blowing holes and a plurality of nozzles for applying a parting compound.

Applicant argues that claim 8 now claims a plurality of nozzles on a first nozzle block and a plurality of nozzles on a second nozzle block. Clearly, the Japanese reference teaches a plurality of first and second nozzles (4, 5) for the upper and lower dies attached to a frame support (30). The combination of the three nozzles (4) and the frame (30) can be considered a first nozzle block and the combination of three nozzles (5) and the frame (30) can be considered a second nozzle block. Even if the claim were to be construed such that the nozzles must be on the upper surface of the brush body there is no material difference between the device in figure 5 of the Japanese reference and that of claim 8.

Applicant further argues in regards to claim 12 that the Japanese reference does not disclose a first and second plurality of holes configured in a row through which air is blown. The examiner respectfully disagrees as the reference discloses a plurality of nozzles (4, 5) each configured in a row. It is inherent that air or a comparable fluid is blown through the nozzles to spray the parting compound against the die surface. The examiner has conceded the point that the reference fails to disclose a plurality of holes to blow air and a second plurality of nozzles to spray a parting compound to each

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respective molding die and that is why claim 13 has been objected to, but allowable if rewritten in independent format.

***Allowable Subject Matter***

7. Claims 1, 2, 4-7 and 21 are allowed over the prior art of record.
8. Claims 10, 13, 15 and 16-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

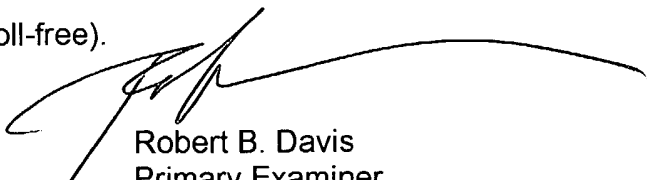
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 571-272-1129. The examiner can normally be reached on Monday-Friday 9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert B. Davis  
Primary Examiner  
Art Unit 1722

3/8/04